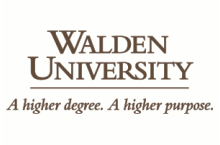

2021

Reimbursement of Mental Health Service for Individuals Seeking Services at Primary Care Facilities

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University
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Abstract

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by

Keith Avant

MA/MS, American InterContinental, 2015

BS, Shorter University, 2013

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Healthcare Administration

Walden University

August 2021

Abstract

The purpose of this quantitative study was to explore the relationship between primary care services, mental health services, patient visits, and insurance reimbursement for individuals with a mental health diagnosis who visit primary care facilities. The theoretical integrated theory of health behavior changes has been vital in identifying the contributing factors to the relationship between primary care, mental health services, and insurance reimbursement. The research questions explored whether any relationship existed between mental health diagnosis and office visits, outpatient versus inpatient, the amount paid for treatment, and reimbursement of services. This study used a quantitative approach along with a Pearson bivariate correlation, Spearman rank-order correlations, and Chi-square tests to show the relationship between the variables of primary care, mental health services, patient visits, and reimbursement. The target population were individuals with mental health diagnoses seeking services at primary care facilities; this study used publicly available data from the 2015 NSDUH. The findings of this study indicated that there was a significant positive relationship between mental health diagnosis, number of visits, and outpatient care and that there was no significant relationship between inpatient/outpatient and mental status. The findings suggested that those diagnosed with a mental health diagnosis receive greater Medicaid and Medicare reimbursement than those without a mental health diagnosis. This study created an understanding of the risk factors associated with individuals with mental health issues receiving care in primary care settings which may lead to positive social change.

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Dedication

Psalm 121:2 My help comes from the LORD, the Maker of heaven and earth. This research study is dedicated to my only daughter Keira Rochelle Avant. Keira, I want to thank you for being my heavenly angel. You have always encouraged me to accomplish all my life goals. You even continued to encourage and embrace me from the heavens above. This research study is fully dedicated in your memory. Keira, I would also like to share your dedication with your grandmother Rosie Sanford and my siblings for being pray warriors when my dissertation journey became questionable. Would you accept this doctoral degree as your own? Dr. Keira Rochelle Avant.

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Section 1: Foundation of the Study and Literature Review

Introduction

Reimbursement of mental health services for individuals seeking services at primary care facilities is the topic of this study. Reimbursement rates are un-equivalently different among primary care and mental health care services. This study explored how patients with mental health diagnoses use Medicare and Medicaid reimbursement significantly more than those who did not have a mental health diagnosis. This study created an understanding of the risk factors associated with individuals with mental health issues receiving care in primary care settings which may lead to positive social change. The theoretical foundation for this research study involved an integration model that explored mental health use in primary care settings. This research study provided a significant opportunity to review peer-reviewed data and service-delivery mechanisms to improve the reimbursement of mental health services in primary care settings. The time spent by primary care providers to address and recognize symptoms of mental health conditions is not reimbursable under the current billing system of Medicare and Medicaid (Hodgkinson et al., 2017). Individuals that seek mental healthcare services at primary care facilities are at elevated risk for a wide range of mental health issues. Mental health is not only the leading cause of disability among adults, but there is also an emerging public health concern in adolescent mental health.

The term primary care and mental health is widely used as if it were consistently defined or well understood (Eneh, 2018). For this study, the terms primary care and mental health were determined based on the historical derivatives of services within the

United States. Primary care in the United States is commonly associated with the unfortunate and disadvantaged individuals living in the United States. (Eneh, 2018). Primary care facilities offer healthcare services to patients, families, and communities (Eneh, 2018). Primary care services improves mental health access, create positive patient outcomes, enhances the quality of care, and reduces mental health expenditures within the United States. The term mental health service is commonly used in the United States and other developed countries. Mental health is one of the lead causes of disability in the United States (Cox, 2018). The term mental health is associated with the complexity of multiple mental health disorders (Cox, 2018). Mental health facilities typically provide emergency services, treatment therapy, and psychiatric care to children and adults (Healthcare.gov, 2020). Primary care services and mental health services are defined in more detail within this study's definition section.

This study could serve as a potential method for positive change towards improved access to care, positive patient outcomes, enhance the quality of care, and reduced expenditures for individuals with mental health disorders. Section 1 is comprised of the introduction, problem statement, purpose, research questions and hypotheses, theoretical foundation, integrated theory of health behavior change (ITHBC), Donabedian's model, theoretical synthesis, nature, literature search, databases and literature search strategies, keywords and scope of literature, literature inclusion and exclusion criteria, key concepts, integration of mental health in primary care settings, historical perspective, definitions, assumptions, scope and delimitations, significance, summary, and conclusions.

Problem Statement

The problem is that there is no current compensation structure for screening mental illness and the provision of mental health services in primary care settings (Zepeda & Sinha, 2016). This study explored the relationship between primary care services, mental health services, patient visits, and insurance reimbursement for individuals with a mental health diagnosis who visit primary care facilities. Primary care facilities differ from mental healthcare facilities concerning several critical factors, such as type of skill level, treatment, and the inconsistencies in reimbursement (Tomizawa et al., 2017). There is a growing issue with time spent by primary care providers to address mental health issues and the lack of Medicare and Medicaid reimbursement for providing mental health services for this population. The promotion of a unique model of a comprehensive continuum of care for people with mental health issues may provide information to address the existing gap in research evidence. Integrating primary care and mental health services is the key to reimbursement for services rendered. This study could address the gap in the literature regarding individual variables that serve as barriers toward reimbursement of mental health services rendered in primary care settings. The inconsistencies of reimbursement associated with mental health services rendered in primary care facilities is the gap I aimed to fill with this study.

There is a lack of reimbursement for early screening and intervention of mental health issues in primary care settings. The length of a mental health visit is impacted by identifying and treating mental health issues. The lengthy visits add to the underlying problem of primary care reimbursement. Primary care providers are expected to provide

patient counseling, diagnostic assessment, psychological testing, and other mental health services in one office visit (Roby & Jones, 2016). Primary care providers are expected to render mental health services that require more time, and they may not be adequately reimbursed for their services. Approximately 60% of patients experiencing mental health issues are treated by primary care facilities, which has created a shortage of mental health professionals (Roby & Jones, 2016; Shi & Singh, 2017). Acute-care hospitals, outpatient clinics, and private healthcare practices provide mental health services to individuals who seek assistance at their facilities instead of mental health facilities. The lack of mental health professionals, coupled with inconsistent Medicare and Medicaid reimbursement, create barriers that prevent primary care facilities from offering screening and interventions for mental health disorders (SAMSHA, 2016).

According to a National Mental Health Services Survey (2020), most mental health treatment facilities are privately operated. Most primary care facilities offer outpatient care services to the community in which they serve. Individuals with mental health issues seeking services in primary care facilities often have other emergent issues that require the use of inpatient hospitalization or emergency department services (Chun et al., 2016). The use of inpatient and outpatient services is associated with an increase in healthcare costs for this population (Krupski et al., 2016).

The migration of individuals with mental illness from mental health facilities to primary care facilities for services is more prominent in rural settings than in urban environments (Breslau et al., 2015). Rural settings have significant shortages of licensed mental health professionals (Shi & Singh, 2017). According to Shi and Singh (2017),

rural areas lack mental health specialists, and this patient population has a higher identified need than that of non-rural areas. This migration places an undue financial burden on rural systems, which are already suffering closures and a lack of sustainability. Untreated mental health issues are prevalent in the mental health population (Baker, 2017). The recognition of people with mental health is only initiated when that individual or family member recognize that a problem exists. Primary care is often the benchmark for identifying inadequate access to mental health services among this population. (Mercedes, 2018). Early detection of mental health disorders in primary care settings prevents long-term psychosocial impairment and poor physical health outcomes. Primary care organizations improve patient's health outcomes.

Healthcare administrators for primary care facilities are faced with barriers to treat these individuals appropriately. These barriers include accessibility, acceptability, and availability of mental health services (Shi & Singh, 2017). This problem is compounded by the lack of primary care and mental health service integration. Individuals with mental illness often have multiple comorbid medical conditions (Lee et al., 2016). Individuals with mental illness also have an increased risk of developing chronic medical conditions (Lee et al., 2016) and sometimes suffer physical, mental, and substance abuse at the hands of their caregivers, which habitually creates other health issues (Melkman, 2017).

There is a diversity of health issues in the mental health population, in addition to mental health conditions, that produces a range of reimbursement issues for primary care facilities, which affects sustainability and long-term program use (Johnson, 2016).

Currently, there is little research or guidance to provide primary care physicians (PCPs) or healthcare administrators in primary care settings with information regarding effective care and appropriate reimbursement for this population. This study provides information to address the existing inconsistencies of reimbursement associated with mental health services rendered in primary care facilities.

Poor mental health is on the rise, and the need for prevention and early intervention starts in primary care organizations (Mercedes, 2018). There is limited research focusing on mental health outcomes for individuals seeking services at primary care organizations (Mercedes, 2018). As previously mentioned, there is a noted problem with individuals visiting primary care facilities seeking treatment for mental health issues. Primary care services and mental health service integration can improve access to primary care for individuals with mental health issues (Krupski, et al., 2016).

Providing mental health services at primary care facilities continues to be a persistent unmet need for healthcare (Durbin et al., 2016). This study shows inconsistencies of reimbursement components that do not adequately compensate primary care providers for treating mental health disorders during primary care visits. The findings might be used to guide efforts to further explore the differences and gaps in reimbursement for mental health services provided in combination with primary care services.

The per capita healthcare cost in the United States is the highest in the world. The most common healthcare measured outcomes rank 37th in the nation (McDaniel & DeGruy III, 2016). Despite the extensive literature on healthcare costs, no researchers

have discussed the relationship between primary care facilities and a reduction in healthcare costs. Poor mental health in primary care facilities is associated with high healthcare expenditures. Individuals with mental health issues are at an elevated risk for a wide range of medical conditions (Krupski, et al., 2016). These medical conditions are often identified after obtaining medical services at primary care facilities. Researchers have not addressed mental healthcare use and the cost in primary care facilities.

Individuals with mental health issues seeking services in primary care facilities often have other emergent issues that require the use of a community hospital. The use of inpatient and outpatient services rendered at community hospitals is associated with increased healthcare costs for this population (Krupski, et al., 2016). Mental health caseloads are higher in primary care facilities due to the shortage of mental health professionals. The lack of trained mental health professionals has caused increased healthcare costs and inadequate reimbursement to primary care facilities (Brown et al., 2017). This study could also improve access to care, patient outcomes, and quality of care, as well as reduce expenditures for individuals with mental health disorders.

Purpose of the Study

The purpose of this quantitative study was to explore the relationship between primary care services, mental health services, patient visits, and insurance reimbursement for individuals with a mental health diagnosis who visit primary care facilities. The dependent variable is individuals with a mental health diagnosis. The independent variables are primary care services, mental health services, patient visits, and Medicaid and Medicare reimbursement, highlighting an existing conjecture relationship with each

other. A conjecture relationship is a term used for the formation or expression of an opinion or theory without enough evidence, which may be insufficient to ensure reliability (Stefaniak et al., 2018). There is a lack of current evidence that shows a relationship between mental health and primary care services, which demonstrates the need to fill a gap in literature related to reimbursement of mental health services for individuals seeking services at primary care facilities. This study provides an in-depth view of the relationship between primary care services, mental health services, patient visits, and insurance reimbursement. These variables are based on secondary data analysis to explore the relationship between Medicare and Medicaid reimbursement for mental health services in primary care facilities, which could improve access to care and reduce overall outpatient visits.

This study provided insights into core competencies, such as communication, collaboration, teamwork, and cultural competency that could impact reimbursement systems in primary care. This research study may lead to a program that could assist healthcare facilities that render services to individuals with mental illness. This study may have a positive impact on the relationship between primary and mental healthcare services. This impact could be limited to patient billing, Medicare and Medicaid reimbursement, patient visits, and healthcare cost (Forson, 2017).

Research Questions and Hypotheses

The following research questions guided this study:

RQ1: What, if any, relationship exists between mental health diagnosis and the number of visits to primary care office facilities?

$H_0$1: No statistically significant relationship exists between mental health diagnosis and the number of visits to primary care office facilities.

H_A1: There is a statistically significant relationship between mental health diagnosis and the number of visits to primary care office facilities.

RQ2: What, if any, relationship exists between receiving mental health services in outpatient care facilities versus inpatient care facilities?

$H_0$2: No statistically significant relationship exists between receiving mental health services in outpatient care facilities versus inpatient care facilities.

H_A2: There is a statistically significant relationship between receiving mental health services in outpatient care facilities versus inpatient care facilities.

RQ3: What, if any, relationship exists between receiving mental health services and the amount paid for inpatient and outpatient treatment?

$H_0$3: No relationship exists between receiving mental health services and the amount paid for inpatient and outpatient treatment.

H_A3: There is a relationship between receiving mental health services and the amount paid for inpatient and outpatient treatment.

RQ4: What, if any, relationship exists between individuals with mental health diagnoses and Medicare and Medicaid reimbursement for mental health services during primary care office visits?

$H_0$4: No relationship exists between individuals with mental health diagnoses and Medicare and Medicaid billing for mental health services during primary care office visits.

H_A4: There is a relationship between individuals with mental health diagnoses and Medicare and Medicaid billing for mental health services during primary care office visits.

Theoretical Foundation for the Study

Integrated Theory of Health Behavior Change

Polly Ryan created the ITHBC from a systemic review of 10 years of peer-reviewed literature (Ryan, 2009). Ryan developed the ITHBC by integrating multiple concepts based on understanding health behavior, combining knowledge and beliefs, self-regulation processes, and social facilitation (Ryan, 2009). Ryan's interventions resulted in changing health behaviors, which is influenced by several theories, including theories of health behavior change.

There have been multiple national studies aimed at identifying individual variables predictive of behavioral health changes for individuals with mental illness seeking care at primary care facilities. The ITHBC has been vital in identifying the contributing factors to the relationship between primary care, mental health services, and insurance reimbursement (Ryan, 2009). According to ITHBC, behavior change is a dynamic process (Ryan, 2009). The integration of concepts, which is the foundation for interventions, results in changed health behaviors (Ryan, 2009). ITHBC has many years of empirical grounding and has been used to facilitate health behavior changes (Ryan, 2009). The application of this theory is needed when providing or directing individual patient healthcare. It is the responsibility of healthcare leaders, healthcare consultants, and healthcare communities to facilitate system change (Ryan, 2009).

The fostering of positive health behaviors within primary care facilities is critical to reimbursement (Forson, 2017). The ITHBC provides guiding principles applied to this study to identify variations of payment in primary care settings and provide needed information to affect change. Fostering healthy behaviors in primary care settings involves (a) appropriate screening, (b) brief mental health intervention, and (c) referral to mental health facilities (Ryan, 2009). The integration of screening tools, mental health interventions, and mental health referrals should provide the capacity for examining the predictive relationship between primary care, mental health services, and insurance reimbursement related to this study. Reimbursement of mental health services for individuals seeking services at primary care facilities is critical for the healthcare industry (Roby & Jones, 2016).

The research questions of this study are interrelated with crucial elements of ITBHC. Most individuals with mental health can select their healthcare provider, which could affect their health outcomes. The increase in mental health care visits in primary care facilities is associated with social facilitation and limited knowledge of healthcare systems. Health providers' skills and integration of mental health and primary care services are vital components in equalizing reimbursement for services rendered. The tools for change in health behavior include the ability to choose a provider, improve patient outcomes, improve social facilitation, increase knowledge, develop provider skills, and integrate services (Forson, 2017).

Health behavior change can be enhanced by fostering knowledge and beliefs, increasing self-regulation skills and abilities, and improving social facilitation (Ryan et

al., 2011). The ITHBC is a promising theory for comprehensive identification of mental illness and served as a guide for this study. The ITHBC posits that fostering positive health behavior change within primary care is critical to improving one's health (Shafer, 2016).

Donabedian's Model

Donabedian's quality assessment model is another tool used in the healthcare industry to examine the importance of primary care, mental services, and insurance reimbursement, which is needed for improved reimbursement for services rendered (as cited in Qu et al., 2010). Structure, process, and outcomes are attributes of Donabedian's quality assessment model (as cited in Qu et al., 2010). The characteristics of Donabedian's structure, process, and outcomes are related to behavioral change, which affects how mental health services are perceived in primary care settings (as cited in Qu et al., 2010). Donabedian proposed that healthcare quality is linked to a systemic integration from structure to process and outcome (as cited in Qu et al., 2010). The three elements of structure, process, and outcome are essential to measure and assess the quality of mental healthcare. According to Donabedian, (as cited in Qu et.al, 2010), the structure is a relatively stable characteristic of the providers of care, including the professional setting, staffed personnel, and services provided. This study explored the relative characteristic of the compensation structure, including Medicare and Medicaid reimbursement (e.g., environment setting, time constraints, and results). Donabedian defined the process as a transactional nature of providing and receiving care involving both providers and recipients of care (as cited in Qu et al., 2010). In this study, the

process comprises two elements: the number of visits and interventions (e.g., diagnosis, secondary comorbidities, and enhancement of motivation). The outcomes of misdiagnosis, increased visits, and inconsistencies in reimbursement are related to this study. The outcomes denote the effects on the health status of mental health patients (e.g., decreased physical, emotional, and social functions). Donabedian described outcomes as changes resulting from healthcare, including improvements in patient knowledge, health status, and behavior and the degree of patients' satisfaction (as cited in Qu et al., 2010).

Donabedian's comprehensive conceptual framework is a crucial asset in understanding primary care, which relates to services rendered, patient visits, and insurance reimbursement that impedes care to individuals with mental illness (as cited in Qu et al., 2010). Donabedian's model has been used to examine behavioral changes that result in positive health outcomes. Donabedian's model was applied as the foundation for this study. The Donabedian model was used to help me examine the payment process related to mental health in primary care facilities. This study explored the relationship between primary care and mental health using an extension of Donabedian structure, process, outcome (SPO) model to include patient visits, Medicare and Medicaid reimbursement, and poor mental health. SPO quality assessment guided the variables of this study that focus on the paradigm for understanding individuals with mental health who seek services at primary care facilities. Qualified personnel, operational structure, and education is vital for equal reimbursement between primary care and mental health care. Social restoration should be achieved in this study with the alignment of the Donabedian model.

Theoretical Synthesis

Few empirical studies have addressed mental health issues and primary care services (Zepeda & Sinha, 2016). Over the last 40 years, conceptual delivery models for primary care have evolved to address barriers related to the quality of healthcare delivery (Becker et al., 2018). This study investigated the barriers of mental health in primary healthcare by applying the above theory and models of care. The fostering of positive health behaviors within primary care facilities is critical to integrating primary care and mental healthcare. However, limited information exists to explain the relationship between mental health and the application of mental health services within the primary care setting.

The variations in reimbursement between mental health and primary care services are related to inconsistencies in the structure of our healthcare system. The current processes of primary care providers allow for multiple mental health visits. Multiple visits adversely affect the outcome of services rendered (Vohra, 2016). The outcomes of mental health are linked to the number of visits, services rendered, reimbursement, and the amount paid for said services (Talmi et al., 2016). Quality care assessment for primary care providers should involve variables related to structure, process, and outcome. As such, the research questions of this study address structure, process, and outcome. Healthcare integration is based on primary care service, mental health service, patient visit, and Medicare and Medicaid reimbursement. Healthcare integration and use is predicted when behavior is controlled.

This study facilitates an understanding of the factors that influence the reimbursement of mental health services in primary care settings. The ITHBC and Donabedian model are avenues to obtain information on different theories of individual behaviors. The theoretical framework of this study allows for a renewed focus on the core values of primary care. Addressing health behavior change is the critical component of the compensation structure for individuals with mental health illness seeking services in primary care settings.

An increasing number of visits of individuals with mental health diagnosis is a learned behavior that needs to be corrected to decrease primary care visits successfully. This study helps to identify mental health services received in the inpatient and outpatient settings. This study further helps identify mental health services received in the inpatient and outpatient settings. Medicare and Medicaid's current billing practices could also benefit from this study. Finally, this study could help United States legislators and healthcare administrators create new policies that would address mental health billing codes to ensure equal reimbursement regardless of where services are rendered.

Nature of the Study

This study used a quantitative approach along with a Pearson bivariate correlation, Spearman rank-order correlations, and Chi-square tests to show the relationship among the variables of primary care, mental health services, patient visits, and Medicare and Medicaid reimbursement. The quantitative method is appropriate when values are both known and measurable (Reardon et al., 2017). The Pearson and Spearman rank-order correlations analysis were applicable to explore a numeric description of

trends, attitudes, or opinions of the archival public data for correlation (Gloria & Steinhardt, 2016).

The secondary data set was retrieved from the Inter-University Consortium for Political and Social Research (ICPSR). The selected secondary data set underwent intensive Pearson, Spearman, and Chi-square analysis. The quantitative approach with Pearson bivariate correlation, Spearman rank-order correlations, and Chi-square tests ensured inquiry consisting of specific questions on an unbiased, objective manner, collecting and analyzing numeric data using statistics. This study consisted of rationally grounded procedures to extent knowledge that a community of scholars should see as reliable and valid. Applying this design approach to this study enables a numeric analysis of the data through statistical procedures (Babbie, 2017). Data were compiled and evaluated by performing multivariate analyses using existing secondary data to answer the research questions of this study. The dependent variable of this study is the mental health diagnosis. The independent variables are primary care services, mental health services, patient visits, and Medicaid and Medicare reimbursement.

A qualitative method was not appropriate for this research study because it focuses on participation in the setting, direct observations, in-depth interviews, and analysis of documents and material (Reardon, et al., 2017). Qualitative methods involve unknown variables, different philosophical assumptions, and other strategies of inquiry (Reardon, et al., 2017). Qualitative methods examine social research data without converting them to a numerical format (Babbie, 2017). The qualitative approach predates quantitative methods, which do not apply to this study based on known variables, Pearson

bivariate correlation, Spearman rank-order correlations, Chi-square tests, and hypothesis testing. This quantitative research study helped in the analysis, interpretation, and dissemination of the secondary data set to identify the variables of primary care, mental health services, patient visits, and Medicaid and Medicare reimbursement and their relationship with mental health diagnosis.

Literature Search Strategy

Databases and Literature Search Strategies

The literature search included databases relevant to federal and government agencies and a data set to identify recent developments in research about federal and state reimbursement of mental health services for individuals seeking services at primary care facilities. The data for this study were compiled from the 2015 United States Department of Health and Human Services (DHHS) and the 2015 Substance Abuse and Mental Health Services Administration (SAMHSA). Both agencies contain several sub-databases such as Treatment Episode Dataset, the National Mental Health Services Survey, and Mental Health Client-Level Data. The sub-databases of DHHS and SAMHSA were also used to locate peer-reviewed articles. ICPSR was another source used to complete this quantitative study. The statistical and analysis procedures were extracted from the data set ICPSR 04373. Data set ICPSR 04373 is the primary source of data collection that addresses the relationship between primary care services, mental health services, patient visits, and insurance reimbursement for individuals with mental health diagnoses who visit primary care facilities.

Walden University Library encompasses Cinahl & Medline, Proquest Health & Medical Collection, Proquest Nursing & Allied Health Source, PsycInfo, Pubmed, and SocIndex databases. These databases were periodically accessed between 2016 and 2020; the information gathered guided this research study.

Information in DHHS, SAMHSA databases, and ICPSR data sets appear reliable and valid due to the supporting evidence, conceptual framework, and scholarly support. Useful peer-reviewed articles and published dissertations were gathered from search engines. The information provided enough evidence on the research topic of this study. The search engines included Waldenulibrary.org, Tandfoline.com, Jouurals.lww.com, Googlescholar.com, and Ebscohost.com. Apart from some references, only peer-reviewed studies and studies published within the last 5 years of the research study were used as a reference.

Keywords and Scope of Literature

Keywords used during this search included primary care facilities, mental health services, Medicare, and Medicaid reimbursement. The following review of the literature involved peer-reviewed articles from a variety of authors. The scope of the research included individuals needing mental health services and the differences between primary care and mental health services within the primary care setting.

Literature Inclusion and Exclusion Criteria

This section describes the scope of literature to be reviewed according to years searched, types of research, and sources searched. The articles are relevant to the relationship between primary care services, mental health services, patient visits, and

insurance reimbursement for individuals with mental health diagnosis who visit primary care facilities. The literature review consists of multiple studies that provided a conceptual framework and a practical, theoretical approach to delivering mental healthcare to individuals in primary care settings. Studies that focus on the integration of mental health and primary care services were reviewed. The population in this study are individuals 18 years of age and older with mental health concerns who seek care at primary care facilities.

Studies addressing mental health issues outside the United States, studies more than 5 years old, and studies about the general delivery of mental health services in various mental health settings are excluded. Research literature that included mental health facilities, long-term care settings, skilled nursing care settings, or individuals with mental health issues in foster care have also been excluded from the review.

Review of the Literature Related to Key Concepts

Integration of Mental Health in Primary Care Settings

This chapter presents a review of the literature used to address significant gaps that have long existed between primary care services, mental health services, and Medicare and Medicaid reimbursement. The literature selected for review range from 2016 to 2020 to show historically significant information believed relevant to this study. A literature review identifies the strengths and weaknesses in related articles based on the variables and concepts of that study. Peer-reviewed articles often show how an intended study addresses the gaps in the literature. The literature results showed that mental health

services are limited and involves many barriers. These barriers are particularly relevant for individuals with mental health issues (McEvers, 2017).

Little is known about how primary care facilities treat mental health conditions and how primary care organizations are reimbursed for providing mental health services (Forson, 2017). Zepeda & Sinha (2016) stated that there is a lack of knowledge of mental health issues and a lack of reimbursement for mental health services provided in primary care settings.

Recent studies have revealed that mental health and primary care integration offers an opportunity to decrease health disparities (Shafer, 2016). However, the decrease in health disparities does not align with the gap in mental health services. Without financial support, particularly billing and lack of reimbursement for mental health services rendered in primary care, the integration of these services will fail (Zepeda & Sinha, 2016). Medical integration often reduces healthcare costs, although primary care providers have not experienced the financial benefits of medical integration (Reiss-Brennan et al., 2016).

Recent literature indicates an increase in mental health issues in primary care settings (Forson, 2017). Most mental health theories and frameworks involve analysis, training, collaboration, patient access, and improvements. Existing methods and literature on mental health services have not been applied to reimbursement when service is rendered in primary care settings. There is a need to understand the experiences of primary care providers and the lack of reimbursement for services provided in primary care settings.

A study by Forson (2017) provided a detailed description of the primary care providers associated with mental health screening and treatment in primary care settings. According to Forson, research suggests that primary care providers should be encouraged to play a more significant role in caring for patients with mental health issues. Most healthcare providers view the care of people with mental health issues as a specialization of care that should only be treated in specialized mental health facilities, not in primary care settings. Access to mental healthcare services occurs in either outpatient settings, inpatient settings, or emergency-room services.

Research indicates that there is a disconnection between primary care and mental healthcare services. Primary care providers (PCP's) at local, state, and national levels continue to provide services for the mental health needs of a large percentage of individuals with mental health issues, and it is essential to understand and identify the reimbursement needs in a primary care setting (McEvers, 2017).

A study conducted by Healthcare Cost and Utilization Project (H-cup) stated that 310,100 community hospital admissions in the US in 2012 included at least one mental health condition (Heslin & Elixhauser, 2016). According to McEvers, half of the primary care visits are mental health-related, 97% have a primary care physician (PCP), and 75% visit their PCP regularly.

Historical studies and current research have focused on models of collaborative care, not on the diagnosis and treatment of mental health patients in primary care settings (Forson, 2017). There is a lack of consistent methods and models that focus on mental health reimbursement for primary care settings. Most mental health research literature

currently available focuses on mental health integration, not on primary care reimbursement.

One major concern with mental health visits in primary care facilities is adequate reimbursement. A study by Shameca Hudson (2018) researched mental health reimbursement in primary care. The purpose of this study was to assess reimbursement, the amount of time spent between patients with and without mental health disorders. The study also explored the levels of mental health and primary care integration. When individuals with mental disorders present to primary facilities for services rendered, their mental health is often overlooked, affecting access to adequate care (Hudson, 2018). The methodology used by Hudson captured data from providers and staff members using an assessment tool. This study provided further evidence that mental health issues have a significant impact on time spent and reimbursement rates. This study included literature citations regarding mental health and primary care integration of services, which were useful for my research.

Most studies that were strategically researched noted the differences regarding billing and reimbursement for mental health services (Forson, 2017). There are limited medical billing codes associated with delivering mental health in primary care. This difference creates a financial disincentive for primary care providers. In primary care settings, there are often increased time requirements when rendering service to newly diagnosed patients (Meadows et al., 2011). Patients with mental health issues visiting a primary care provider for the first time will require some form of counseling, medication planning, and possible referral to a mental health specialist. The lengthy visits,

counseling, plan of care, and time spent seeking a mental health specialist are not reimbursed in primary care settings.

Increasing reimbursement in primary care settings for undervalued services should promote fairness and access to quality care. Improving primary care reimbursement is vital to the pivotal role primary care plays in mental health integration (Olfson, 2016). Undervalued services related to billing codes will need to be identified and addressed when integrating mental health in primary care settings. Detailed research was required to understand the barriers, gaps, and limitations related to reimbursement for mental health services. More research is necessary to meet the demand of individuals seeking mental health services in primary care settings. A gap in the literature exists due to the relationship between variables that surround mental health reimbursement. This gap in literature may have not been explored.

Historical Perspective

Mental health is both self and social stigma that affect access to healthcare. There is a general tendency to blame persons with mental health issues for allowing it to develop and continue (Saunders & Bowersox, 2007). The social stigma that surrounds mental health can prevent individuals from seeking treatment, thus enhancing other medical conditions increasing overall healthcare costs. Most patients with mental health and other comorbidities in the United States receive treatment from a PCP rather than from a mental health professional. Although it is not thoroughly discussed in most research studies, the overarching obstacle that is challenging when providing quality

mental health services is related to reimbursement and the barrier of insurance coverage of individuals seeking services at primary care facilities.

Stigma is when individuals negatively view other people due to their characteristics. Unfortunately, negative attitudes and beliefs toward people with mental health illnesses are common (Cox, 2018). The harmful effects of stigmatism are associated with inadequate health insurance that does not cover all mental health needs, or individuals are reluctant to seek help or treatment. However, the stigma related to mental health conditions often forces individuals to seek care at primary care facilities.

Definitions

Definitions are necessary to specify terms defined in this study to assure shared understanding and meaning. The terms and words used in this study have multiple meanings. For this study, the terms primary care and mental health were based on the historical derivatives of services within the United States. The variables of mental health diagnosis, primary care services, mental health services, patient visits, and Medicaid and Medicare reimbursement are concisely defined for better understanding.

For the purposes of the study, reimbursement describes the payment that a primary care provider or other healthcare providers receive for giving individuals medical services (Healthcare.gov, 2020). Primary care services include health promotion, disease prevention, health maintenance, counseling, patient education, diagnosis, and treatment of acute and chronic illness in a variety of health care settings. Primary care services are rendered by primary care providers such as a physician, nurse practitioner, clinical nurse specialist, or physician assistant (Healthcare.gov, 2020). Mental health service is defined

as treating individuals with mental disorders, using specific strategies to prevent mental disorders. The term mental health diagnosis was used in this study. Mental health diagnosis is defined as a syndrome characterized by clinical disturbance in an individual's cognition, emotion regulation, or behavior that reflects underlying mental functioning (McLean, 2017). The symptoms of mental health are often noticed when an individual seeks services in primary care settings. Health behavior change refers to efforts to change individual personal habits and attitudes to prevent disease (Ryan, 2009). Patient visits are defined as a doctor's visit, also known as a physician visit, is a meeting between a patient to get health advice or treatment for a symptom or condition.

Assumptions

There are several assumptions associated with this study, including theoretical and methodological assumptions. The assumptions below are necessary due to the articles found and reviewed during my search strategies. This study used publicly available secondary data; it was assumed to be representation of the United States population. It was also believed that the data has been accurately collected and adequately analyzed.

Another assumption was this study places more attention on reimbursement and billing codes assigned to mental health services. It was also assumed that increase healthcare cost is related to the increase in visits to mental health services, especially individuals seeking services in primary care settings. It is believed that primary care providers do not feel confident about the initial screening and screening of a patient with a mental health diagnosis.

Further, it was assumed that the collection of data for this study were complete, unbiased, and reliable. Additional assumptions were about the internal and external validity of the data to include the specificity of the variables. The multiple patient visits, patient history, and data maturation were assumed to be accurate and applicable for this study.

Scope and Delimitations

The scope of this study were patients with mental health diagnosis residing in the United States who participated in the 2015 NSDUH. The data collected were available via the internet for public use. This study used a quantitative approach along with a Pearson bivariate correlation, Spearman rank-order correlations, and Chi-square tests to show the relationship between the variables of primary care, mental health services, patient visits, and reimbursement. This study represented sampling techniques, adequate sample size, and statistical procedures that yield generalized results. The findings from the sample population were applied to individuals that were diagnosed with mental health disorders. This study's findings and conclusions could be applied to the population at large based on the relevant facts of rendering mental health services in primary care facilities. There is no current compensation structure for screening mental illness and the provision of mental health services in primary care settings (Zepeda & Sinha, 2016). The sample population from the secondary data set are individuals with mental health diagnosis. The secondary data collected were analyzed through a Statistical Package for Social Sciences (SPSS). The SPSS software assisted with control over the organizing and managing of the secondary data.

Delimitations are considered as a potential weakness in a study and not controlled by the researcher. The following delimitations provided the boundaries for this study. A limited number of studies reviewed using search strategies on the research topic that did not apply to a broader population. The interpretative nature of research using a quantitative methodology makes the research vulnerable to imprecisions. This study excluded individuals seeking treatment outside primary care settings. The study did not explore gender, age, or ethnicity. The skill and expertise of my data collection were limited to the depth and constraint of the data collected. The collection and review of data were restricted to the data available from ICPSR.

Significance

Healthcare administrators must be keenly aware of budgetary constraints, provider productivity, and scheduling in primary care settings. The overuse of emergency mental health interventions by primary care facilities has placed a higher demand on mental health funding and insurance reimbursement (Shi & Singh, 2017). The increasing cost of mental health services is predicted to surpass fees for services needed to treat heart disease, diabetes, stroke, and cancer (SAMSHA, 2016). Research provides evidence on the impact of multiple medical conditions on organizational healthcare costs and insurance reimbursement (Lee et al., 2016). According to Lee et al. (2016), individuals with mental illness and other medical conditions have been shown to increase average healthcare costs by $505 to $651 per month, thus affecting changes to the reimbursement system. Healthcare administrators in primary care settings must allocate funding that will

ensure availability, accessibility, and acceptability for individuals with mental health issues (Shi & Singh, 2017).

The fragmentation of mental health services and overuse of primary healthcare services has put this patient population at higher risk. Healthcare administrators have faced challenges in securing adequate resources for individuals with mental illness during and after discharge from their facilities. Healthcare administrators must examine the benefits of primary care combined with mental health services that explores the coordination of care for mental illness. The main function of primary care is to coordinate the delivery of health services between the patient and other healthcare entities to improve overall outcomes and to ensure reimbursements (Shi & Singh, 2017). However, it is the fragmentation of services, non-availability of mental health facilities, lack of patient access to mental health services, and lack of understanding about this issue that present barriers to a solution.

The issues faced by this patient population have caused an increased concern for mental health and service reimbursement. Graham et al. (2016) stated that mental health patients visited primary care in record numbers. It is known that individuals with mental illness treated in primary care are likely to receive the minimum care compared to receiving care from a mental health provider (Graham et al., 2016). The lack of federal and state reimbursement policies prevent many primary care physicians from offering screening and intervention for mental health services (Roby & Jones, 2016). The issue of individuals with mental health conditions resulting in multiple hospital visits is an urgent matter, impacting society, hospitals, and specific communities. Healthcare administrators

have faced challenges in securing adequate funding for operations that include a strategic reimbursement plan to enhance the sustainability of these services for this underserved population.

Understanding the factors that influence reimbursement rates into the routine primary care of individuals with mental health issues is needed to identify external barriers of reimbursement. Primary care providers have increasingly taken on roles in meeting the needs within the mental health community (McEvers, 2017). McEvers noted in her research study that there are various barriers associated with mental health, including challenges with reimbursement.

The contributions of this study could provide the necessary recognition of the benefits to society for the promotion of equal reimbursement for primary care providers when rendering services to the mental health population. The data analyzed has several implications for health services managers and policymakers to take a closer look at the reimbursement of mental health services for individuals seeking services at primary care facilities. This study initiated a positive social change that creates an understanding of the risk factors associated with individuals with mental health issues receiving care in primary care settings. There are various suggestions in this study that were used for motivating healthcare service managers and policymakers to alter the behaviors of the mental health population.

Summary

This study explored the relationship between primary care services, mental health services, patient visits, and Medicare and Medicaid reimbursement for individuals with

mental health diagnosis who visit primary care facilities. The contents of this study were attributed to a thorough review of current literature, which spanned relevant information from historical reimbursement, length of office visits, integration, mental health use, and ability to diagnose symptoms of mental health. Additional themes included in the literature review were early screening, inconsistencies in reimbursement, gaps in the literature, fostering health behaviors, and intervention.

This chapter served as an introduction to describe the significant gaps that has long existed between the care and services received for mental health treatment at primary care facilities. The integration of mental health and primary care must be fully understood to decrease the barriers, gaps, disparities, and limitations in meeting mental health needs. A comprehensive understanding could support large-scale innovative improvements (McEvers, 2017). More research is needed, not just on health services integration, but issues that are related to reimbursement in primary care settings.

The financial implication of providing mental health services in primary care settings is not fully understood; the specific nature of the barriers and how to remove them is currently unknown. The information gathered from this research study provided answers related to reimbursement of mental health services for individuals seeking services at primary care facilities, reductions in medical costs, and improvements in quality of care and patient outcomes. Gaps in reimbursement create a system that limits the full extent of services offered to the mental health community (American Psychological Association, 7th edition).

Conclusions

The problem under investigation was the lack of reimbursement for early screening and intervention of mental health issues in primary care settings. This study used a quantitative approach along with a Pearson bivariate correlation, Spearman rank-order correlations, and Chi-square tests to show the relationship between the variables of primary care, mental health services, patient visits, and reimbursement. This study explored ways to reduce the disparities of reimbursement when providing mental health services in primary care facilities.

Section 1 reviewed the relevant research literature on mental health diagnosis, medical billing, and available reimbursement and identified a gap associated with mental health services rendered in primary care facilities. Section 2 details research design and rationale, methodology, sampling procedures, data access, data collection, validity, instrumentation, and summary for this research study and described the quantitative approach to support the analysis of the research questions related to the study.

Section 2: Research Design and Data Collection

Introduction

This quantitative study explored the relationship between primary care services, mental health services, patient visits, and insurance reimbursement for individuals with mental health diagnoses who visit primary care facilities. Section 2 details the research design and rationale, methodology, target population, sampling procedures, data access, data collection, data analysis, threats to validity, ethical procedures, instrumentation, and summary. The research design and rationale, variables, and research questions are

discussed in this section, along with the target population and sampling. Section 2 also contains discussions addressing data access and collection.

Research Design and Rationale

This study used a quantitative approach along with a Pearson bivariate correlation, Spearman rank-order correlations, and Chi-square tests to show the relationship between the variables of primary care, mental health services, patient visits, and reimbursement extracted from the National Survey on Drug Use and Health (NSDUH). This survey was retrieved from ICPSR. This survey measures the prevalence and correlates variables related to Medicare and Medicaid payments (National Survey on Drug Use and Health, 2004, 2015). Respondents in the survey were asked about personal and family income sources and amounts. They were also asked questions about mental health and access to primary care organizations. The research design and rationale are used to fill the gap in research related to individuals with mental health issues that visit primary care facilities.

The use of a quantitative approach and Pearson bivariate correlation, Spearman rank-order correlations, and Chi-square tests allowed for a more robust set of information when compared to the original data set. The increase in knowledge should help the reader to use and understand this research study fully. This quantitative approach and Pearson bivariate correlation, Spearman rank-order correlations, and Chi-square tests described the basic features of the data and summarized the sample with simple graphic analysis.

The dependent variable of this study is mental health diagnosis. The independent variables are primary care services, mental health services, patient visits, and Medicare

and Medicaid reimbursement. These variables emphasize an existing relationship among them. The questions in this research study are designed to capture the interdisciplinary problems related to reimbursement of mental health for individuals seeking services at primary care facilities. The outcome of this study provided an in-depth look at mental health reimbursement and primary care.

Meadows et al. (2011) published findings of known issues with Medicare and Medicaid reimbursement for early screening and intervention of mental health issues in primary care settings. The time spent by primary care providers to address individual mental health issues and insurance reimbursement is not acceptable when providing mental health services for this population (National Survey on Drug and Health, 2004, 2015). This study analyzed the data to show the prevalence of respondents and the correlation of variables related to Medicare and Medicaid payments (National Survey on Drug Use and Health, 2004, 2015).

Methodology

Target Population

The target population was individuals with mental health diagnoses seeking services at primary care facilities. The public file used contains 55,602 records due to the subsampling of the collected data from the respondents. The sample design of the secondary data required an equal number of individuals in three age groups: 18 to 25 years, 26 to 35years or older (National survey on drug and health, 2004, 2015). ICPSR 04373 instrument of choice was human observation and computer-assisted devices.

Researchers are often an instrument in conducting interviews and rationalistic content analysis.

Sampling Procedures

The methodology for this study selected and sampled cases from a secondary data set that answered the study research questions. After reviewing each of the field interviewers' data collection related to the secondary data set, the secondary source data were placed into software that individualized the methods of data collection. The previously collected data were obtained through data surveys and modes of data collection using audio computer-assisted self-interview (ACASI) and computer-assisted personal interview (CAPI) software. Answers to sensitive questions were gathered from ACASI. During ACASI portions of the interview, respondents listened to prerecorded questions through headphones. They entered their responses directly into a computer without interviewers knowing how they were answering (National survey on drug and health, 2004, 2015). After the ACASI section, the interview returned to the CAPI mode with the interviewer completing the survey (National survey on drug and health, 2004, 2015). Everyone who completed a full interview was given a $30 cash payment as a token of appreciation for their time (National survey on drug and health, 2004, 2015). This computer-assisted software is available on a variety of platforms, including Windows-based laptops, smartphones, and tablets. This allowed for more flexibility in different environments (Population council, n.d.). Computer-assisted technology safeguards the privacy and improves the standardization of data collected on sensitive research topics.

The original data from the survey ICPSR 04373, was used to meet the needs of this research study. The variables within the secondary data set were re-coded and transformed to address the needs of this research study. The secondary variables of this research study are (AUNMEN2) number of visits to outpatient medical health, (AUMCLN2) number of visits to an outpatient medical clinic, (AUPOMCR) Medicare outpatient mental healthcare, (AUPOPMCD) Medicaid outpatient mental healthcare, (AUPOPFRE) outpatient mental healthcare that was free, and (TXPYSP2) other pay for mental health treatment (National survey on drug and health, 2004, 2015). The collected data in this research study are for public use; there was no affiliation required to access the data.

The value labels associated with not entered, do not know, refused, blank (no answer), and the legitimate skip were purposely excluded to eliminate cases with unacceptable levels of missing data (National survey on drug and health, 2004, 2015). A variety of re-coded variables were used to state the null hypothesis related to this study. The re-coding of variables allowed for the independent and dependent variables to answer the research questions being studied.

Data Access

I developed an operational plan that reviewed the NSDUH ICPSR 04373. The data collected relayed the thoughts and feelings of the studied participants (National Survey on Drug Use and Health, 2004, 2015). I ensured that the data collected were protected by the DHHS. Respondents of this survey were assured that their identities and responses would be handled in compliance with federal regulations and guidelines

(National Survey on Drug Use and Health, 2004, 2015). To further ensure respondent confidentiality, the data producer used data substitution and deletion of state identifiers and a subsample of records in creating the public use file (National Survey on Drug Use and Health, 2004, 2015). The codebook of this survey included a statistical disclosure to protect the confidentiality of the individual respondents.

This study used publicly available data from the 2015 NSDUH, which are co-sponsored by the DHHS, and SAMHSA. The data set is respectively housed in ICPSR. ICPSR was established in 1962 and is an integral part of the infrastructure of social science research. ICPSR maintains and provides access to a vast array of social science data for research and interventions (National survey on drug and health, 2004, 2015). There were over 900 field interviews portioned around the United States to collect the secondary data used in this study.

There were no limitations on gaining access to the secondary data located in ICPSR. It is open for public viewing and use. The lack of restriction allows for easy access and quick retrieval of information related to the population of mental health. This immediate access allowed for decreased research hours and decreased momentary costs associated with this study. Data collection continued until data saturation occurred. Data saturation means no new information was revealed using the secondary data set obtained from ICPSR.

Data Collection

The collection of the data focused on the research questions of this study. The variables of primary care services, mental health services, patient visits, and Medicare

and Medicaid reimbursement were intentionally chosen to address each variable's relationship adequately and comprehensively. The descriptive statistic helped organize and describe the data collected from the target population related to this study. The data were analyzed to test the hypotheses of the study. The testing of the hypotheses provided evidence to help me decide how my data relate to the theoretical framework that guided this research.

The data collected from the secondary data set (ICPSR 04373) were used to provide insights into the problem statement in this study. However, my role was to ensure the protection of the participants and their data. Finally, my role as the researcher of this study entailed understanding the respondents' issues with mental health and seeking care at primary care facilities. The removal of all biased perceptions about respondents ensured my understanding of the information retrieved from the secondary data set.

Instrumentation and Operationalization of Constructs

The published instruments were constructed by the DHHS, along with the SAMHSA (National Survey on Drug Use and Health, 2004, 2015). The year of publication of the secondary data was May 2006, with a new version released in November 2015 (National Survey on Drug Use and Health, 2004, 2015). The appropriateness of the secondary study is related to the study, in terms of diagnostic of mental health disorders, healthcare access, and coverage. The data for this study were compiled from a national public domain repository of the 2004 NSDUH, supported by the SAMHSA. This publicly available survey data has been cited in separate research

studies. The continuous use of this survey among research scholars demonstrates reliability and validity.

Curran (2018) used the DHHS and SAMHSA to organize the Children's Mental Health initiative to improve collaboration and coordinated care in children's mental health treatment. Curran described the experiences of school and community mental health service providers and those who supervise them. Curran demonstrated the validity of both DHHS and SAMHSA by examining the collaboration between school and community mental health providers. This collaboration helps to overcome barriers through improved coordination of services for children with unmet mental health needs.

Eyongherok (2019) used a survey from SAMHSA (2018) to examine the relationship between mental health disparities and minority populations. Eyongherok found that the incidence rates of mental disease diagnoses among racial/ethnic minorities being comparable to or less than that of White Americans. The research by Eyongherok demonstrates the validity of the SAMHSA survey.

Operationalization

Specifications from the secondary data yield variables of (AUNMEN2) number of visits to outpatient medical health, (AUMCLN2) number of visits to an outpatient medical clinic, (AUPOMCR) Medicare outpatient mental healthcare, (AUPOPMCD) Medicaid outpatient mental healthcare, (AUPOPFRE) outpatient mental healthcare that was free, and (TXPYSP2) other pay for mental health treatment. The operational definition of the variables used a multistage area probability sample from 50 states and the District of Columbia (National survey on drug and health, 2004, 2015). The sample

was stratified on multiple levels. The sample allocation process targeted three age groups: 18 to 25 years, 26 to 35years or older (National survey on drug and health, 2004, 2015). The operational structure was used for each variable.

The variables of AUNMMEN2 and AUNMCLN2 were measured with an ordinal scale. An ordinal measurement consists of variables with attributes that we can logically rank in order (Babbie, 2017). An example is a socioeconomic status composed of high, medium, and low (Babbie, 2017). The remaining variables of AUPOPMCD, AUPOPFRE, and TXPYSP2 consist of attributes related to nominal measurements. A nominal measurement merely offers names or labels for characteristics (Babbie, 2017). An example of nominal measurement would be a religious affiliation, sex, or city where you live.

The variables were calculated using a basic sampling weight. The weights of person-level analysis, split-sample design, and adult depression estimates were adjusted to ensure consistency with population projections (National survey on drug and health, 2004, 2015). The estimate's yield was based on sample survey data rather than complete data for the entire population (National survey on drug and health, 2004, 2015). This means that the data must be weighted to obtain unbiased estimates of the population (National survey on drug and health, 2004, 2015). The "final sampling weight" of the i^{th} respondent, say w_i, can be interpreted as the number of persons in the target population represented by the i^{th} respondent (National survey on drug and health, 2004, 2015). The sum of the weights over all respondents was used to estimate the size of the total target

population: $\sum_i w_i$ = estimated size of the target population (National survey on drug and health, 2004, 2015).

Data Analysis Plan

There are several potential methods for analyzing data when conducting research. Some data analysis includes collating, indexing, and collocating. This study used SPSS version 25.0. SPSS helped find the means, standard deviations, and range of measurements for the independent and dependent variables. This study collected multiple variables to determine whether a relationship exists between individual variables. This study used archival data of 55,602 records extracted from the public file ICPSR 04373. The original data from the survey ICPSR 04373 were reorganized to meet the needs of this research study. According to Wagner (2017), one must reorganize the way data are recorded before performing statistical analysis.

RQ1: What, if any, relationship exists between mental health diagnosis and the number of visits to primary care office facilities?

$H_0$1: No statistically significant relationship exists between mental health diagnosis and the number of visits to primary care office facilities.

H_A1: There is a statistically significant relationship between mental health diagnosis and the number of visits to primary care office facilities.

RQ2: What, if any, relationship exists between receiving mental health services in outpatient care facilities versus inpatient care facilities?

$H_0$2: No statistically significant relationship exists between receiving mental health services in outpatient care facilities versus inpatient care facilities.

H_A2: There is a statistically significant relationship between receiving mental health services in outpatient care facilities versus inpatient care facilities.

RQ3: What, if any, relationship exists between receiving mental health services and the amount paid for inpatient and outpatient treatment?

H_03: No relationship exists between receiving mental health services and the amount paid for inpatient and outpatient treatment.

H_A3: There is a relationship between receiving mental health services and the amount paid for inpatient and outpatient treatment.

RQ4: What, if any, relationship exists between individuals with mental health diagnoses and Medicare and Medicaid reimbursement for mental health services during primary care office visits?

H_04: No relationship exists between individuals with mental health diagnoses and Medicare and Medicaid billing for mental health services during primary care office visits.

H_A4: There is a relationship between individuals with mental health diagnoses and Medicare and Medicaid billing for mental health services during primary care office visits.

Selecting a Pearson bivariate correlation, Spearman rank-order correlations, and Chi-square tests as data analysis techniques for my current study were appropriate. Pearson bivariate correlation analysis allowed for analyzing relationships among variables related to the variable being studied (Gibbs, 2018). The Pearson bivariate correlation, Spearman rank-order correlations, and Chi-square tests included frequency

distributions, measures of central tendency, and measures of variability. Data for all variables were carefully screened through bivariate and multivariate analysis that explored the characteristics and identified any issues regarding the assumptions required of the null hypotheses. All the research study hypotheses were tested using analysis. Pearson bivariate correlation, Spearman rank-order correlations, and Chi-square tests of independence was incorporated to analyze mean differences among variables. The results of this study were interpreted using Pearson bivariate correlation, Spearman rank-order correlations, and Chi-square tests. The Pearson, Spearman, and Chi-square analysis revealed the extent to which the variables are related. Thus, Pearson, Spearman, and Chi-square analysis were reliable analytical tools for predicting one variable from information about other variables in this study.

Threats to Validity

The risk of threats were addressed as they applied to the study. The data was validated by arguments within the research process that showed it was well-founded and sound. The validity measurements included content, criterion, and construct.

Validity

Validity relates to the degree to which the study accurately reflects or assesses the variables being measured. According to Bell et al. (2020), validity is indicative that a measurement that can produce consistent results within the context of a specific study from one test to another test. The external and internal threats of this study are minimized or eliminated due to the significant fieldwork and the instrumentation weighting procedures.

Internal Validity

Internal validity refers to the validity of causal inference (Kjell & Rae, 2015). According to Onwuegbuzie et al. (2009) internal validity research is the magnitude of how well the research design and the data obtained allow for accurate conclusions about the relationships of the study. This study was cross-referenced with the secondary data to included weighted estimates, variable naming conventions, and logical editing that ensured the data were a representation of the population surveyed.

In this study several methods were used to identify internal validity. Internal validity methods were data saturation, early interpretation of data, and seeking truth within the data to match reality, these methods were used to ensure accuracy of the findings. The reconstructions and representations showed trustworthiness of the data findings.

External Validity

External validity refers to the generalizability of the study (Kjell & Rae, 2015). External validity is related to the degree to which the broader scientific and scholarly community accepts the data obtained in the research. To evaluate the external validity, this study identified the research findings. This study used variance estimation to establish trustworthiness and enhance the credibility of the research findings.

External validity of the study was related to the extent of the findings. The data obtained were compiled and transmitted to exceed the scope of the study. External validity was achieved by replicating the secondary data in a different context that resulted the same conclusions.

Ethical Procedures

Extensive work was done on the archival data extracted from a secondary data set known as ICPSR 04373. ICPSR 04373 was confidentiality protected before being released for public use. A statistical disclosure limitation method was used. This method is known as Micro Agglomeration, Substitution, Subsampling, and Calibration (MASSC). The framework of MASSC allows for both disclosure risk and information loss to be controlled. According to the 2015 NSDUH, all direct identifiers were removed except the demographic and other geographic identifiers related to the secondary data set.

Summary

Section 2 described this quantitative research study which, explored the relationship between primary care services, mental health services, patient visits, and insurance reimbursement for individuals with mental health diagnosis who visit primary care facilities. This section described detailed research design and rationale, methodology, target population, sampling procedures, data access, data collection, data analysis, threats to validity, ethical practices, instrumentation, and summary. A description of the research design and rationale, variables, and research questions were discussed in this section, along with the target population and sampling. Section 2 also contained discussions addressing data access and collection.

This study is based on a quantitative approach and Pearson bivariate correlation, Spearman rank-order correlations, and Chi-square tests. This study could help with the fragmentation of healthcare with a focus on Medicare and Medicaid reimbursement.

There is a lack of reimbursement for early screening and intervention for the mental health population.

The secondary data used is publicly available, which increases the accessibility with no limitations on obtaining access to the secondary data set used in this study. The data collection ran continuously and focused on the research questions of this study. Statistical testing was used to test the related hypothesis. Institutional permissions and IRB approvals was granted.

The target population were individuals with mental health diagnosis seeking services at primary care facilities. The age group of individuals ranges from three age groups: 18 to 25 years, 26 to 35years or older. The sampling procedures were constructed using computer-assisted devices. A variety of re-coded variables was used to state the null hypothesis related to this study. The trustworthiness of the secondary data was measured for internal and external validity. Section 3 provides information on the results of the study, specifically about the data collection of the secondary data set. The statistical testing procedures and results was explained in detail. A description of the significance of the research results of mental health in primary care extended to the literature and may provide direction for future research.

Section 3: Presentation of the Results and Findings

Introduction

This quantitative study explored the relationship between primary care services, mental health services, patient visits, and insurance reimbursement for individuals with a

mental health diagnosis who visit primary care facilities. There are four research questions and null hypotheses in this study:

RQ1: What, if any, relationship exists between mental health diagnosis and the number of visits to primary care office facilities?

$H_0$1: No statistically significant relationship exists between mental health diagnosis and the number of visits to primary care office facilities.

H_A1: There is a statistically significant relationship between mental health diagnosis and the number of visits to primary care office facilities.

RQ2: What, if any, relationship exists between receiving mental health services in outpatient care facilities versus inpatient care facilities?

$H_0$2: No statistically significant relationship exists between receiving mental health services in outpatient care facilities versus inpatient care facilities.

H_A2: There is a statistically significant relationship between receiving mental health services in outpatient care facilities versus inpatient care facilities.

RQ3: What, if any, relationship exists between receiving mental health services and the amount paid for inpatient and outpatient treatment?

$H_0$3: No relationship exists between receiving mental health services and the amount paid for inpatient and outpatient treatment.

H_A3: There is a relationship between receiving mental health services and the amount paid for inpatient and outpatient treatment.

RQ4: What, if any, relationship exists between individuals with mental health diagnoses and Medicare and Medicaid reimbursement for mental health services during primary care office visits?

$H_0$4: No relationship exists between individuals with mental health diagnoses and Medicare and Medicaid billing for mental health services during primary care office visits.

H_A4: There is a relationship between individuals with mental health diagnoses and Medicare and Medicaid billing for mental health services during primary care office visits.

This section contains three parts. The first part reviewed the data collection of secondary data set. This included the timeframe of data collection, baseline descriptive demographic characteristics, and description of the representativeness of the sample. The second part of Section 3 is the results section. The results portion of this section contains Pearson bivariate correlation, Spearman rank-order correlations, and Chi-square tests that analyzed key variables associated with the study, an evaluation of the statistical assumptions of the tests, and a report of the statistical tests that address the research questions. This section concludes with a summarization of the answers to the research questions.

Data Collection of Secondary Data Set

This study used publicly available data from the 2015 NSDUH, which are co-sponsored by the DHHS, and SAMHSA. The data set is respectively housed in ICPSR. There were over 900 field interviews portioned around the United States to collect the

secondary data used in this study. The “final sampling weight” of the i th respondent, say wi, can be interpreted as the number of persons in the target population represented by the i th respondent (National survey on drug and health, 2004, 2015). The sum of the weights over all respondents was used to estimate the size of the total target population: ∑iwi = estimated size of the target population (National survey on drug and health, 2004, 2015). So, the sample was representative of the population from the standpoint of proportionality.

The study yielded a weighted screening response rate of 91% and a weighted interview response rate for the computer assisted interview (CAI) of 77%. The achieved sample for the 2004 NSDUH was 67,760 persons. The public use file contains 55,602 records due to a subsampling step used in the disclosure protection procedures. Of that sample, there were 736 participants who had a mental health diagnosis and were included in this study. Ages ranged from 18 to over 65 years old. Roughly half of respondent were under the age of 26 years old. The vast majority of respondents were female (71.2%). See Table 1.

Table 1

Demographic Statistics

	N	%
Gender		
Male	212	28.8%
Female	524	71.2%
Age		
18-21	178	24.3%
22-25	180	24.5%
26-29	53	7.2%
30-34	66	9.0%
35-49	162	22.0%
50-64	57	7.7%
65 and older	40	5.4%

Results

RQ1: What, if any, relationship exists between mental health diagnosis and the number of visits to primary care office facilities?

A Pearson bivariate correlation was performed to address this research question. Mental health diagnosis status was coded as 1 for yes and 0 for no. There were two continuous variables relating to number of visits to a primary care office facility. The first variable was number of visits to an outpatient mental health center in the past 12 months. The second variable was number of visits to an outpatient medical clinic in the past 12 months. Results of the Pearson correlation indicated that that there was a significant

positive relationship between mental health diagnosis and number of visits to the outpatient's medical clinic in the past 12 months, r = .166, n = 209, p = .007. Based on Cohen's effect size standards for a correlation coefficient, where .1 is small/weak, .3 is medium/moderate, and .5 and higher is strong, the relationship between mental health diagnosis and number of visits to the outpatient medical clinic in the past month was weak. The results indicated that those who were diagnosed with a mental illness had significantly more visits to the outpatient medical clinic than those who had no mental illness diagnosis. There was no significant relationship between mental health status and number of visits to the outpatient mental health center in the past 12 months, r = -.057, n = 536, p = .071. Based on these results, the null hypothesis was rejected. See Table 2.

Table 1

Correlation Between Mental Health Diagnosis and Number of Visits to an Outpatient Mental Health Center and Medical Clinic

	Mental health diagnosis	# visits to outpatient MH center in past 12 months
# visits to outpatient MH center in past 12 months	-.057	
# visits to outpatient med clinic in past 12 months	.166**	.624**

** - denotes significant at the .01 level

RQ2: What, if any, relationship exists between receiving mental health services in outpatient care facilities versus inpatient care facilities?

The second research question was evaluated using the chi-square test of independence (with Yates continuity correction). This test was chosen because the variables used to answer this research question were categorical. For example, received in patient mental health services was coded as 1 for yes and 2 for no. The variable received

outpatient mental health treatment in the past year was coded as 1 for yes and 2 for no. The results of the chi-square test of independence indicated that there was a significant association between receiving mental health services in outpatient care facilities, and inpatient care facilities, χ^2 (1, n = 37196) = 1539.85, p < .001, phi = .204. Based on Cohen's effect size standard of the phi coefficient of .10 for small, .30 medium, and .50 for large, the size of the effect was small. Table 3 reveals that those who received mental health services in outpatient care facilities (8.8%) were more likely to receive mental health service in inpatient facilities than those who did not receive mental health services in outpatient care facilities (.05%). See Table 3.

Table 3
Prevalence of Receiving Mental Health Services in Outpatient Care Facilities Versus Inpatient Care Facilities

	Receiving mental health services in outpatient care facilities - Yes		Receiving mental health services in outpatient care facilities - No		
Receiving mental health services in in-patient care facilities	n	%	n	%	χ^2 (1)
Yes	237	8.8%	169	.0.5%	1539.85**
No	2529	91.4%	34261	99.5%	

** - denotes p < .001

RQ3: What, if any, relationship exists between receiving mental health services and the amount paid for inpatient and outpatient treatment?

In this analysis there were 4 variables. The first variable was received inpatient mental health treatment in the past year (AMHINP2), where 1 is yes and 2 is no. The second variable was received outpatient mental health treatment in the past year (AMHOUTP3), where 1 is yes and 2 is no. The third variable, which was ordinal, was

amount paid for inpatient mental health care (AUPINFM2), while the fourth variable, which was also ordinal, was amount paid for outpatient mental health care (AUPOPAMT). Given that two of the four variables were ordinal, the non-parametric Spearman rank order correlation was conducted. Results of the Spearman rank order correlation indicated that there was no significant relationship between received inpatient mental health treatment and amount paid for outpatient mental health treatment, $r = -.056$, $n = 1014$, $p = .076$. However, there was a statistically significant negative relationship between received outpatient mental health treatment and amount paid for inpatient mental health treatment, $r = -.270$, $n = 87$, $p = .011$, where those who received outpatient mental health treatment paid more for inpatient mental health than those who did not receive outpatient mental health treatment. Based on the results, the null hypothesis was rejected. See Table 4.

Table 4

Correlation Between Receiving Mental Health Services and Amount Paid for Inpatient and Outpatient Treatment

	Received inpatient mental health treatment	Received outpatient mental health treatment	Amount paid for inpatient mental health treatment
Received outpatient mental health treatment	.204**		
Amount paid for inpatient mental health treatment	-	-270*	
Amount paid for outpatient mental health treatment	-.056	-	.333

* - denotes significant at the .05 level; ** - denotes significant at the .01 level

RQ 4: What, if any relationship exists between individuals with mental health diagnosis and Medicare and Medicaid reimbursement for mental health services during primary care office visits?

In this analysis mental health diagnosis was scored 0 for no and 1 for yes. Additionally, the 2 variables Medicaid and Medicare reimbursement for mental health services during primary care visit were both coded 1 for yes and 6 for no. There were no responses associated with values 2 thru 5. Because all variables were dichotomous, chi-square test of independence was conducted. The results of the first chi-square test of independence with the continuity correction, indicated that there was a statistically significant association between mental health diagnosis and received inpatient mental

health reimbursement via Medicaid, $\chi^2(1, n = 388) = 79.44$, phi = -.46. The effect size value of the phi coefficient indicated that the effect of mental health status on Medicaid reimbursement was medium in size, based on Cohen's effect size standards. The results of the chi-square test indicated that those with mental health diagnosis (53.6%) were more likely to receive a Medicaid reimbursement than those without a mental diagnosis (10.8%). See Table 5.

Table 5

Chi-square Test of Independence Examining the Association of Mental Health Status and Receiving Medicaid Reimbursement

	Mental health diagnosis - No		Mental health diagnosis - Yes		
Received inpatient mental health Medicaid reimbursement	n	%	n	%	χ^2 (1)
Yes	30	10.8%	59	53.6%	79.44**
No	248	88.9%	51	46.4%	

** - denotes p < .001

The results of the second chi-square test of independence with the continuity correction, indicated that there was a statistically significant association between mental health diagnosis and received inpatient mental health reimbursement via Medicare, $\chi2(1, n = 388) = 19.40$, phi = -.23. The effect size value of the phi coefficient indicated that the effect of mental health status on Medicare reimbursement was small, based on Cohen's effect size standards. The results of the chi-square test indicated that those with mental health diagnosis (35.5%) were more likely to receive a Medicaid reimbursement than those without a mental diagnosis (14.7%). See Table 6.

Table 6

Chi-square Test of Independence Examining the Association of Mental Health Status and Receiving Medicare Reimbursement

	Mental health diagnosis - No		Mental health diagnosis - Yes		
Received inpatient mental health Medicare reimbursement	n	%	n	%	χ^2 (1)
Yes	41	14.7%	39	35.5%	19.40**
No	237	85.3%	71	64.5%	

** - denotes p < .001

Summary

Research question 1asked, what, if any relationship exists between mental health diagnosis and the number of visits to primary care office facilities. The result indicated that those who were diagnosed with a mental illness had significantly more visits to the outpatient medical clinic in the past 12 months than those who had no mental illness diagnosis. There was no significant relationship between mental health status and number of visits to the outpatient mental health center in the past 12 months. The second research question asked, what, if any relationship exists between receiving mental health services in outpatient care facilities versus inpatient care facilities. The results indicated that those who received mental health services in outpatient care facilities were more likely also receive mental health service in inpatient facilities, than those who did not receive mental health services in outpatient care facilities. Research question 3 asked, what, if any, relationship exists between receiving mental health services and the amount paid for inpatient and outpatient treatment. There was a significant negative relationship between received outpatient mental health treatment and amount paid for inpatient mental health treatment, r = -.270, n = 87, p = .011, where those who received outpatient mental health

treatment paid less for inpatient mental health than those who did not receive outpatient mental health treatment. The fourth research question explored whether there was a significant relationship between mental health status and Medicare and Medicaid reimbursement for mental health services. The results indicated that those with a mental health diagnosis used Medicare and Medicaid reimbursement significantly more than those who did not have a mental health diagnosis.

In the next section, the results are discussed in the content of the theoretical framework and the literature reviewed earlier in this paper. Additionally, the limitations of the study are explored further, along with implications of the study's findings.

Section 4: Application to Professional Practice and Implications for Social Change

Introduction

There is no current compensation structure for screening mental illness and the provision of mental health services in primary care settings. (Zepeda & Sinha, 2016). Additionally, there is a growing issue with time spent by primary care providers to address mental health issues and the lack of Medicare and Medicaid reimbursement for providing mental health services for this population. This study explored the relationship between primary care services, mental health services, patient visits, and insurance reimbursement for individuals with a mental health diagnosis who visit primary care facilities. Primary care facilities differ from mental healthcare facilities concerning several critical factors, such as type of skill level, treatment, and the inconsistencies in reimbursement (Tomizawa et al., 2017). The promotion of a unique model of a comprehensive continuum of care for people with mental health issues may provide

information to address the existing gap in research evidence. Integrating primary care and mental health services is the key to reimbursement for services rendered.

First, for Research Question 1, the results indicated that those who were diagnosed with a mental illness had significantly more visits to the outpatient medical clinic in the past 12 months than those who had no mental illness diagnosis. For the second research question, the results indicated that those who received mental health services in outpatient care facilities were significantly more likely to receive mental health service in inpatient facilities than those who did not receive mental health services in outpatient care facilities. The statistical analysis to address the third research question revealed that there was a significant negative relationship between received outpatient mental health treatment and amount paid for inpatient mental health treatment, where those who received outpatient mental health treatment paid less for inpatient mental health than those who did not receive outpatient mental health treatment. The fourth research question explored whether there was a significant relationship between mental health status and Medicare and Medicaid reimbursement for mental health services. The results indicated that those with a mental health diagnosis used Medicare and Medicaid reimbursement significantly more than those who did not have a mental health diagnosis.

This section first contains a review of the results in the context of the peer-reviewed literature in this study. The results of the study were discussed in the context of what was expected based on the theoretical framework. The limitations of the study are discussed, followed by the recommendations for future study. Next, the implications of

the study are discussed in the context of professional practice and social change. Finally, the section ends with the conclusions.

Interpretation of the Findings

The interpretation of findings is divided into two sections. The first section focuses on interpreting results in the context of whether they confirm, disconfirm, or extend knowledge found in the literature. The second section relates to interpreting the findings of this study in terms of the theoretical framework.

Peer-Reviewed Literature

Research by Saunders and Bowersox (2007) reveals that mental health issues bring self and social stigma that adversely affect access to healthcare. The authors state that the stigma that surrounds mental health may prevent people from seeking treatment. Additionally, Saunders and Bowersox noted that most patients with mental health and other comorbidities in the United States receive treatment from a PCP rather than from a mental health professional.

Research Question 1 asked what, if any, relationship exists between mental health diagnosis and the number of visits to primary care office facilities. Based on the research of Saunders and Bowersox (2007), it was expected that people with mental health diagnoses would have a high number of visits to the primary care office facilities. The results of the study found that those who were diagnosed with a mental illness had significantly more visits to the outpatient medical clinic in the past 12 months than those who had no mental illness diagnosis. Therefore, the results of the study confirm and align with what was expected from the literature.

The second research question asked what, if any, relationship exists between receiving mental health services in outpatient care facilities versus inpatient care facilities. Based on the research by Saunders and Bowersox (2007), it was expected that people receiving mental health services from outpatient care facilities would be less likely to receive mental health services in inpatient care facilities, compared to those who had not received outpatient services in the past year. The results of this study found the opposite of what was expected. Those who received mental health services in outpatient care facilities were more likely to receive mental health service in inpatient facilities than those who did not receive mental health services in outpatient care facilities. Therefore, the results did not align with what was expected, based on the literature.

The third research question asked what, if any, relationship exists between receiving mental health services and the amount paid for inpatient and outpatient treatment. Given that the research by Saunders and Bowersox (2007) found that mental health patients use primary care facilities more frequently, it was expected that mental health patients would pay more for outpatient care than inpatient care. The results did not confirm or align with what was expected, as the amount paid for inpatient mental healthcare was significantly higher than the amount paid for outpatient care.

The fourth research question focused on what, if any, relationship exists between individuals with mental health diagnosis and Medicare and Medicaid reimbursement for mental health services during primary care office visits. Based on the literature, it was expected that high usage of primary care services would result in higher Medicare and Medicaid reimbursement. The findings of the study confirmed and aligned with what was

expected, as the results indicated that those with a mental health diagnosis used Medicare and Medicaid reimbursement significantly more than those who did not have a mental health diagnosis.

Disconnection Between Primary Care and Mental Health Services

PCPs at local, state, and national levels continue to provide services for the mental health needs of a large percentage of individuals with mental health issues, and it is essential to understand and identify the reimbursement needs in a primary care setting (McEvers, 2017). According to McEvers (2017), half of the primary care visits are mental health-related, 97% have a PCP, and 75% visit their PCP regularly. One major concern with mental health visits in primary care facilities is adequate reimbursement. There are limited medical billing codes associated with delivering mental health in primary care. This difference creates a financial disincentive for primary care providers. Improving primary care reimbursement is vital to the pivotal role primary care plays in mental health integration (Olfson, 2016).

Research Question 1 explored whether there was any relationship between mental health diagnosis and the number of visits to primary care office facilities. Based on the peer-reviewed literature relating to the disconnection between primary care and mental health services, it was expected that patients with mental health diagnoses would have a high number of visits to the primary care office facilities than those without a mental health diagnosis. The result indicated that those who were diagnosed with a mental illness had significantly more visits to the outpatient medical clinic in the past 12 months than

those who had no mental illness diagnosis. Therefore, the results confirm and align to what was expected in the literature.

The second research question explored whether any relationship exists between receiving mental health services in outpatient care facilities versus inpatient care facilities. It was expected, based on the research by McEvers (2017), that patients receiving mental health services from outpatient care facilities would be less likely to receive mental health services in inpatient care facilities, compared to those who had not received outpatient services in the past year. The results of this study were opposed to what was expected. Those who received mental health services in outpatient care facilities were more likely to receive mental health service in inpatient facilities than those who did not receive mental health services in outpatient care facilities. The results, therefore, do not confirm or align with what was expected, based on the literature.

The third research question asked what, if any, relationship exists between receiving mental health services and the amount paid for inpatient and outpatient treatment. According to McEvers (2017), half of the primary care visits are mental health-related, 97% of mental health patients have a PCP, and 75% visit their PCP regularly. Therefore, it was expected that mental health patients would pay more for outpatient care than inpatient care. The results did not confirm or align with what was expected, as the amount paid for inpatient mental healthcare was significantly higher than the amount paid for outpatient care.

Finally, the fourth research question asked what, if any, relationship exists between individuals with mental health diagnosis and Medicare and Medicaid

reimbursement for mental health services during primary care office visits. Based on the research of Olfson (2016), there are limited medical billing codes associated with delivering mental health in primary care. This difference creates a financial disincentive for primary care providers. Therefore, it was expected that high usage of primary care services would result in lower Medicare and Medicaid reimbursement. The findings of the study disconfirmed and did not aligned with what was expected, as the results indicated that those with a mental health diagnosis used Medicare and Medicaid reimbursement significantly more than those who did not have a mental health diagnosis.

Theoretical Framework

Integrated Theory of Health Behavior Changes

According to ITHBC, behavior change is a dynamic process (Ryan, 2009). The integration of concepts, which is the foundation for interventions, results in changed health behaviors (Ryan, 2009). The way to foster healthy behaviors in primary care settings is to include (a) appropriate screening, (b) brief mental health intervention, and (c) referral to mental health facilities (Ryan, 2009). The ITHBC posits that fostering positive health behavior change within primary care is critical to improving one's health (Shafer, 2016). By having an organized system, reimbursement can be justified. Currently, the system is not organized for optimal improvement of mental health, nor the adequate reimbursement of mental health services rendered through primary care settings. These inefficiencies relate directly to increases in mental health care visits in primary care facilities, which are associated with social facilitation and limited knowledge of healthcare systems.

Given the tenets of the ITHBC theory, for Research Question 1, it was expected that patients with mental health diagnoses would have a high number of visits to the primary care office facilities than those without a mental health diagnosis. The result indicated that those who were diagnosed with a mental illness had significantly more visits to the outpatient medical clinic in the past 12 months than those who had no mental illness diagnosis. Therefore, the results confirm and align to what was expected in the literature.

Considering the current inefficiencies in the health care model, based on the ITHBC model, it was expected for Research Question 2 that patients receiving mental health services from outpatient care facilities would be less likely to receive mental health services in inpatient care facilities, compared to those who had not received outpatient mental health services in the past year. The results of this study were the opposite of what was expected. Those who received mental health services in outpatient care facilities were more likely to receive mental health services in inpatient facilities than those who did not receive mental health services in outpatient care facilities. The results, therefore, do not confirm or align with what was expected, based on the literature.

Our current health care system, according to the ITHBC model, is inefficient. Reimbursement of mental health services rendered to primary care facilities is not adequate. Therefore, it was expected for Research Question 3 that mental health patients would pay more for outpatient care than inpatient care. The results did not confirm or align with what was expected, as the amount paid for inpatient mental healthcare was significantly higher than the amount paid for outpatient care.

Health care systems inefficiencies relating to the delivery of mental health services by primary care facilities are reflected in the limited number of mental health billing codes for primary care facilities (Olfson, 2016). As a result, it was expected for Research Question 4 that high usage of primary care services would result in lower Medicare and Medicaid reimbursement. The findings of the study disconfirmed and did not aligned with what was expected, as the results indicated that those with a mental health diagnosis used Medicare and Medicaid reimbursement significantly more than those who did not have a mental health diagnosis.

Donabedian's Quality Assessment Model

Donabedian's quality assessment model is another tool used in the healthcare industry to examine the importance of primary care, mental services, and insurance reimbursement, which is needed for improved reimbursement for services rendered (as cited in Qu et al., 2010). Structure, process, and outcomes are attributes of Donabedian's quality assessment model (as cited in Qu et al., 2010). Donabedian proposed that healthcare quality is linked to a systemic integration from structure to process and outcome (as cited in Qu et al., 2010). The three elements of structure, process, and outcome are essential to measure and assess the quality of mental healthcare. In this study, structure was compensation (Medicaid and Medicare), the process was number of visits and interventions (e.g., diagnosis, secondary comorbidities, and enhancement of motivation), and the outcome was the effects on the health status of mental health patients, which including decreased physical, emotional, and social functions.

The variations in reimbursement between mental health and primary care services are related to inconsistencies in the structure of our healthcare system. The current processes of primary care providers allow for multiple mental health visits. Multiple visits adversely affect the outcome of services rendered (Vohra, 2016). The outcomes of mental health are linked to the number of visits, services rendered, reimbursement, and the amount paid for said services (Talmi et al., 2016).

Limitations of the Study

One of the limitations of this study was its use of the quantitative design. This design allows for the statistical analysis of data to test hypotheses, and not the detailed description of variables. Quantitative analysis does not provide the in depth understanding of why outcomes have occurred. Another limitation was the use of self-report measures in general, which may be biased and have inaccuracies related to self-reporting. Additionally, other measurement tools have been excluded that may be valid measures. Finally, this study was cross sectional in nature, and not longitudinal. Therefore, it is not known if the findings will be consistent over time. It was noted in section 1 of this study that rural areas lack mental health professionals. The shortage of mental health professionals has placed this patient population at a higher need of primary care services than those of non-rural areas. Untreated rural mental health is another limitation that was related to this study.

Recommendations

The quantitative design is limited in that it does not explore why a phenomenon has or has not occurred. There were a few findings that did not align with what was

expected from the research from the literature review or from the theoretical framework used in this study. Therefore, it was recommended that a qualitative study that includes either focus groups or in-depth interviews be conducted to understand how patients with mental health diagnoses use Medicare and Medicaid reimbursement significantly more than those who did not have a mental health diagnosis. Also, a qualitative study might provide insights as to why the amount paid for mental health services was significant higher for inpatient care than outpatient care.

Another recommendation, based on one of the limitations of the study, was to conduct a longitudinal analysis of these research questions to determine if there are changes over time. This study used a cross-sectional study design. Meaning it reflects a snapshot in time (Creswell, 2018; Leedy & Omrod, 2018). By using a longitudinal design, the researcher would be able to observe any trends that may occurring and evaluate if efficiencies are improving in the delivery of mental health services among primary care facilities.

Implications for Professional Practice and Social Change

Implications for Professional Practice

As a healthcare management professional, there were several implications of this study related to professional practice. First, it was hypothesized from the ITHBC theory that inefficiencies in the healthcare system led to increased usage of mental health services at primary care facilities. This was confirmed by the study findings. The increase in mental health care visits in primary care facilities is associated with social facilitation and limited knowledge of healthcare systems (Ryan, 2009; Shafer, 2016). Healthcare

management professionals can develop programs designed to increase patients' knowledge of the healthcare system; these programs could be used to attain the proper mental health professional for their treatment. Second, healthcare professionals could develop or consult on media campaigns that are designed to minimize the stigma of seeking treatment from a mental health professional instead their primary facility. Third, according to Shafer (2016), the integration of screening tools, mental health interventions, and mental health referrals should provide the capacity for examining the predictive relationship between primary care, mental health services, and insurance reimbursement. Healthcare management professionals have the skill capacity to participate in the development and management of the integration of screening tools, mental health interventions, and mental health referrals. Additionally, healthcare management professionals have the skill set to evaluate the predictive relationship between primary care, mental health services, and insurance reimbursement. Essentially, all these processes could be spearheaded by the healthcare management professional and would put them at the forefront of improving healthcare efficiency relating to the delivery of mental health services by primary care facilities.

Implications of Positive Social Change

Study results indicated that those who were diagnosed with a mental illness had significantly more visits to the outpatient medical clinic in the past 12 months than those who had no mental illness diagnosis. This is not a good thing, according to the ITHBC theory, as it reflects healthcare inefficiencies and lack of patient knowledge of the system (Shafer, 2016). Implementing the changes in professional practice noted earlier, would

have a positive impact on the individual patient level, as it would lessen their time spent at a primary care facility versus a mental health professional facility. By decreasing the time used by those seeking mental health services from primary care facilities, there will be more time to attend others who have not been diagnosed with mental health problems. This, along with the appropriate placement of mental health patients with mental health professionals, will help to increase the overall efficiency of the healthcare system, in addition to the individual patients. Society, in general, also benefits from the appropriate distribution source of mental health services. If mental health patients are directed towards mental health professionals, they can receive high quality care, which may result in reduced time spent in mental health outpatient treatment, which in turn results in the lower of healthcare costs for the society via Medicare and Medicaid.

Conclusion

Although the findings suggested that those who receive a mental health diagnosis receive greater Medicaid and Medicare reimbursement than those without a mental health diagnosis, the healthcare system still faces many challenges related to primary care facilities and mental health services. First, those who are diagnosed with a mental illness had significantly more visits to the outpatient medical clinic than those who were not diagnosed. Second, there are minimal medical billing codes for providing mental health services in primary care facility. Evidence of this problem was seen in the findings where the amount paid for inpatient mental health services was significantly higher than the amount paid for outpatient mental health services. Despite these inefficiencies, there is tremendous opportunity to correct these issues.

One strategy that can be used to correct the current healthcare inefficiencies is the education of mental health patients on the workings of the system. If, mental health patients are taught and encouraged to seek help from a mental health professional, this could be effective at relieving some of the pressures currently placed on primary care facilities. Another strategy that can be used is the mitigation of stigma around seeking mental health treatment from a mental health professional. The mitigation of stigma could also help reduce the pressure on primary care facilities by having more mental health patients move to mental health practitioners. Another strategy is for healthcare management professionals to take the lead on managing the integration of screening tools, mental health interventions, and mental health referrals, all with the goal of improving the ability of primary care physicians to assist patients with mental health diagnoses. Healthcare management professionals will be at the forefront of improving care for mental health patients. Health Administrators and legislators could create health policies that would restructure the way primary care functions. The restructuring of policies could help improve how mental health patients are identified, treated, and referred to the next level of care. The reimbursement structure also needs improvement when it involves Medicare and Medicaid reimbursement of mental health services administered by primary care facilities. Primary care facilities must work in continuum with Federal and State Officials to advance the delivery of care to both mental health and non-mental health patients.

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